

CURRICULUM VITAE

Name: Mark L. Brantly

Date and Place of Birth:

Citizenship: United States

Education:

1976 B. S. Florida State University
Tallahassee, Florida

1979 M.D. University of Florida
Gainesville, Florida

Licensure:

Virginia

North Carolina

Florida

Board Certification:

American Board of Internal Medicine 1982

Pulmonary Medicine 1994

Chronology of Employment:

2000- Associate Director University of Florida GCRC
Gainesville, Florida

1996-2000 Board of Directors Alphal Foundation
Coconut Grove, Florida

1996-2001 Co-Chair, Alphal Research Centers Network
Coconut Grove, Florida

1998- Professor of Medicine, Molecular Genetics, and Microbiology
Division of Pulmonary and Critical Care Medicine
University of Florida College of Medicine

1998- Director, OF al-Antitrypsin Genetics Laboratory
University of Florida College of Medicine

1995-1998 Senior Investigator and
Head, Pulmonary Function Laboratory
Pulmonary-Critical Care Medicine Branch
National Heart, Lung, and Blood Institute
Bethesda, Maryland

1995-1998 Reviewer
National Heart, Lung, and Blood Institute
Mammalian Genotyping Service

	Center for Medical Genetics
1990-1994	Marshfield Medical Research Foundation Marshfield, Wisconsin Head, Unit on Genetic Disorders of Secreted Proteins Human Genetics Branch
1990-1994	National Institute of Child Health and Human Development Bethesda, Maryland NICHD-1RB Committee Member
1988-1998	National Institute of Child Health and Human Development Bethesda, Maryland Director, National α1-Antitrypsin Phenotyping Laboratory Pulmonary-Critical Care Medicine Branch National Heart, Lung, and Blood Institute Bethesda, Maryland
1988-1997	National Heart, Lung, and Blood Institute α1-Antitrypsin Deficiency Registry Steering Committee Member
1989-1990	Senior Staff Fellow Pulmonary Branch National Heart, Lung and Blood Institute Bethesda, Maryland
1986-1989	Parker B. Francis Fellow Pulmonary Branch National Heart, Lung, and Blood Institute Bethesda, Maryland
1983-1986	Senior Staff Fellow Pulmonary Branch National Heart, Lung, and Blood Institute Bethesda, Maryland
1982-1983 Medical School Norfolk, Virginia	Chief Medical Resident Eastern Virginia
1980-1982	Residency, Internal Medicine

Eastern Virginia Medical School Norfolk, Virginia 1979-1980 Internship

Eastern Virginia Medical School Norfolk, Virginia

Honors:

1979 Paul Elliot Award for Excellence in Primary Care

1986-1989 Parker B. Francis Research Fellow in Pulmonary Medicine

1995 Alpha I National Association Award

1996-1997 Visiting Professor Award Universita Degli Studi Di Modena

1998- Alpha One Foundation Research Professorship

Professional Societies: American Thoracic Association American Society of Cell Biology

Publications

1. Chaudhuri, T. K. and M. Brantly. "Heparin as a pharmacologic intervention to induce positive scintiscan in occult gastrointestinal bleeding." *Clin Nucl Med.* 9(4): 187-8, 1984.
2. Garver, R. J., J. F. Mornex, T. Nukiwa, M. Brantly, M. Courtney, J. P. LeCocq and R. G. Crystal. "Alpha 1-antitrypsin deficiency and emphysema caused by homozygous inheritance of non-expressing alpha 1-antitrypsin genes." *N Engl J Med.* 314(12): 762-6, 1986.
3. Miskulin, M., R. Dagleish, B. B. Kluge, S. I. Rennard, P. Tolstoshev, M. Brantly and R. G. Crystal. "Human type III collagen gene expression is coordinately modulated with the type I collagen genes during fibroblast growth." *Biochemistry.* 25(6): 1408-13, 1986.
4. Nukiwa, T., M. Brantly, R. Garver, L. Paul, M. Courtney, J. P. LeCocq and R. G. Crystal. "Evaluation of "at risk: alpha 1-antitrypsin genotype SZ with synthetic oligonucleotide gene probes." *J Clin Invest.* 77(2): 528-37, 1986.
5. Nukiwa, T., K. Satoh, M. L. Brantly, F. Ogushi, G. A. Fells, M. Courtney and R. G. Crystal. "Identification of a second mutation in the protein-coding sequence of the Z type alpha 1-antitrypsin gene." *J Biol Chem.* 261(34): 15989-94, 1986.
6. Garver, R. J., A. Chytil, S. Karlsson, G. A. Fells, M. L. Brantly, M. Courtney, P. W. Kantoff, A. W. Nienhuis, W. F. Anderson and R. G. Crystal. "Production of glycosylated physiologically "normal: human alpha 1-antitrypsin by mouse fibroblasts modified by insertion of a human alpha 1-antitrypsin cDNA using a retroviral vector." *Proc Natl Acad Sci U S A.* 84(4): 10504, 1987.
7. Nukiwa, T., M. Brantly, F. Ogushi, G. Fells, K. Satoh, L. Stier, M. Courtney and R. G. Crystal. "Characterization of the M1(Ala213) type of alpha 1-antitrypsin, a newly recognized, common "normal: alpha 1-antitrypsin haplotype." *Biochemistry.* 26: 5259-67, 1987.
8. Nukiwa, T., H. Takahashi, M. Brantly, M. Courtney and R. G. Crystal. "alpha 1-Antitrypsin nullGranite Falls, a nonexpressing alpha 1-antitrypsin gene associated with a frameshift to stop mutation in a coding exon." *J Biol Chem.* 262(25): 11999-2004, 1987.
9. Wewers, M. D., M. L. Brantly, M. A. Casolaro and R. G. Crystal. "Evaluation of tamoxifen as a therapy to augment alpha- 1 -antitrypsin concentrations in Z homozygous alpha- 1 -antitrypsindeficient subjects." *Am Rev Respir Dis.* 135(2):401-2, 1987.
10. Brantly, M., T. Nukiwa and R. G. Crystal. "Molecular basis of alpha- 1-antitrypsin deficiency." *Am J Med.* 84(6A): 13-31, 1988.
11. Brantly, M., M. Courtney and R. G. Crystal. "Repair of the secretion defect in the Z form of alpha 1-antitrypsin by addition of a second mutation." *Science.* 242(4886): 1700-2, 1988.
12. Brantly, M. L., L. D. Paul, B. H. Miller, R. T. Falk, M. Wu and R. G. Crystal. "Clinical

features and history of the destructive lung disease associated with alpha- 1-antitrypsin deficiency of adults with pulmonary symptoms." Am Rev Respir Dis. 138(2):327-36,1988.

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26. Holmes, M. D., M.L. Brantly, and R.G. Crystal. Molecular analysis of the heterogeneity among the P-Family of alpha- 1-antitrypsin alleles. Am Rev Respir Dis. 142: 1185-1192, 1990.
27. Brantly ML, Wittes JT, Vogelmeier CF, Hubbard RC, Fells GA, Crystal RG. Accurate quantification of serum al-antitrypsin standard to establish ranges for the common normal and deficient al-antitrypsin phenotypes. Chest 100: 703-708, 1991 .
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tyrosinemia type I Human Mutation 1995; 6: 66-73.

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64. Avila, N. A., M. Brantly, A. Premkumar, M. Huizing, A. Dwyer, and [W. A. Gahl. 2002. Hermansky-Pudlak](#) syndrome: radiography and CT of the chest compared with pulmonary function tests and genetic studies. *AJR Am J Roentgenol* 179(4):887-92.
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Abstracts

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2. Paul L, Brantly M, Straus S, Dalgleish R, Courtney M, Tolstoshev P, LeCocq J-P, Crystal RG. Common polymorphisms of the al-antitrypsin gene not associated with alterations of protein isoelectric focusing patterns. *Am Rev Respir Dis* 1984; 129 (part 2): A306.
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4. Nukiwa T, Brantly ML, Paul L, Garver R, Courtney M, Tolstoshev P, LeCocq JP, Crystal RG. Correlation of al-antitrypsin genotype assessed by gene specific oligonucleotide probes with al-antitrypsin protein phenotype. *Am Rev Resp Dis* 1985; 131 (part 2): A372.
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Patents

Increased Expression of Alpha- 1-Antitrypsin in Expression Vectors Through the inclusion of Intron II. Patent Serial Number 08/060,925

Clinical Studies Last 10 years

1. Armour Al-PI Intravenous Phase Ia, (NIH, Bethesda, Maryland) 1995-6
PI and Central Lab for study
2. Alpha Therapeutics AIPI Intravenous Phase III (NIH, Bethesda, Maryland, University of Florida) 1995-2000.
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3. Armour-Centeon Al-PI Intravenous Phase Ib (NIH and University of Florida), 1998-1999.
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4. PPL Aerosolized Transgenic Sheep Alpha- 1-Antitrypsin Phase I/Pilot (University of Florida) 1999-2000, PI and central lab
5. Centeon -Aventis-Behring Phase III Intravenous Phase III (University of Florida) PI and Central Lab, 2000-2001
6. Aventis-Behring Phase I Aerosolized A1-PI (University of Florida) 2000-2001 PI and Central Laboratory
7. American Red Cross- Phase I Intravenous AIPI, (University of Florida)
Ongoing PI and Central Lab
8. Baxter-Arriva-Phase I Aerosolized rAAT (University of Florida)
Ongoing PI
9. Alpha One Foundation - 4-Phenyl butyrate Secretion Rescue (University of Florida)
Ongoing, PI and Central Laboratory